

### **REMARKS**

This is a response to the Office Action mailed December 8, 2006.

#### **Summary of Office Action**

Claims 1, 2 and 6 were rejected under 35 U.S.C. 103(a) as being unpatentable over Neuhaus (US 3,887,171), and further in view of Takeuchi et al. (US 4,830,090). Claims 3 and 4 were rejected under 35 U.S.C. 103(a) as being unpatentable over Neuhaus as applied to Claim 1 above, and further in view of Kneppel et al. (US 2002/0029865). Claim 5 was rejected under 35 U.S.C. 103(a) as being unpatentable over Neuhaus as applied to Claim 1 above, and further in view of Poloni et al. (US 5,716,538).

#### **Applicants Response**

By this Response, Applicants have incorporated the subject matter of Claims 2-5 into independent Claim 1. Moreover, independent Claim 1 has been amended to recite that the first distributor is immersed in the second distributor. Additionally, the reference numerals recited in the claims have been deleted.

Applicants respectfully submit that the cited prior art, does not disclose, suggest or make obvious the limitation in Claim 1 directed to a first distributor having elongated holes having the shape of a slot arranged on one or more side walls. In Neuhaus, the first distributor has circular holes 8, as shown in Fig. 2. In Takeuchi et al., the specification does not appear to disclose the configuration of the hole 11. As understood, the important feature of the hole 11 appears to be that the hole is located above the sediment layer 8 and below a top surface of the melt. (See column 3, lines 14-22 of Takeuchi et al.). Accordingly, the cited prior art does not disclose, suggest or make obvious a limitation of elongated holes having the shape of a slot arranged on one or more side walls. Hence, Claim 1 is believed to be in condition for allowance based on a contention that the cited prior art fails to disclose, suggest or make obvious such limitation.

Also, Applicants respectfully submit that the cited prior art does not disclose, suggest or make obvious the limitation in Claim 1 directed to "a second distributor having an elongated, substantially prismatic shape between the first distributor and the ingot mould, wherein the first distributor is immersed in the second distributor." Neuhaus does not disclose a second distributor (see page 4 of office action). As such, Neuhaus does not disclose a first distributor immersed in

the second distributor. Knepple appears to only disclose a tube immersed in the second distributor. Hence, Claim 1 is believed to be in condition for allowance based on a contention that the cited prior art fails to disclose, suggest or make obvious such limitation.

Moreover, Applicants respectfully submit that the cited prior art does not disclose, suggest or make obvious a discharger having a funnel-like shape, with an angle of divergence of its internal walls smaller than 7 degrees, for discharging molten metal from a tundish into the intermediate tank, as recited in amended Claim 1. The dischargers shown in the cited prior art appear to have a cylindrical shapes and not a frusto conial shape. As understood, the angle of divergence of its internal wall is zero degrees. Hence, the cited prior art does not disclose a discharger having a funnel-like shape, with an angle of divergence of internal walls smaller than 7°. Accordingly, Claim 1 is believed to be in condition for allowance.

The three limitations discussed above which Applicant contends are not individually disclosed, suggested or made obvious by the cited prior art produces a smooth and steady melt flow from the tundish into the mould in order to produce a very good strip without defects. In particular, the longitudinal slots provide a large flow while avoiding the creation of turbulence in the melt. Also, the position of the elongate holes on the flanks of the discharger allows the passing of the flow into the second discharger only of the upper, more quiet melt. A hole in the bottom of the discharger would instead increase the tendency to produce vortexes. The second distributor contributes to further smoothen the flow between the first distributor and the mould. The funnel-like gradual shape of the discharger produces a steady flow from the tundish into the first distributor and eliminates splashes.

For the foregoing reasons, Applicants respectfully submit that Claim 1 is in condition for allowance. Claim 6 which is dependent from Claim 1 is also believed to be in condition for allowance for containing additional patentable subject matter and for being dependent upon allowable base Claim 1.

### **Conclusion**

For the foregoing reasons, Claims 1 and 6 are believed to be in condition for allowance. An early notice of allowance is therefore respectfully requested.

Should the Examiner have any questions or suggestions for expediting allowance of the application, the Examiner is invited to contact Applicants' undersigned representative at the number listed below.

If any additional fee is required, please charge Deposit Account Number 19-4330.

Respectfully submitted,

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